

A Maker's Guide To



Python

Jeremy C. Morgan

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A Brief Introduction to Python for Makers

Who this book is for

This book is intended to be a very basic introduction to Python for folks with little or no programming experience. It is intended for "Makers" who want to build IoT and other embedded projects with such devices as a Raspberry Pi, Arduino, BeagleBone, etc. It covers the basics you'll need to know to start reading sensors, lighting up LEDs, pushing servos and more.

You won't learn the detailed intricacies of the language or be a Python expert, but after reading this book you'll be comfortable enough to build workable scripts to run your projects.

About the Author

I am Jeremy Morgan, and I'm a software engineer, maker, and blogger from Oregon. I have been tinkering with electronics since the 80s, and have been a professional software developer for about 15 years. I'm a polyglot developer who has worked in both Linux and Windows systems, and developed Python professionally for a short time. I hope to use my experience and a love for simplicity to work for you.

What you'll need

For this book, you'll need a computer. It can be Windows, Mac, or Linux. If you're in Windows you'll have to download and install Python, you can get it here:

<https://www.python.org/downloads/windows/>

For this book we're going to use the 2.7.x branch of Python though much of this may work in 3.0.

Part I

Getting Started

In this part we're going to get started with the very basics of Python. We're going to be working with the command line throughout this entire guide, because that's how you have to interact with the majority of devices. In this chapter we'll cover:

- What you'll need
- How to connect to a device
- What on Earth is a REPL?
- Python at the Command Line

